

# SOCIAL FACTORS ASSOCIATED WITH DELAY IN DISCHARGE FROM AN ACUTE MEDICAL WARD

by

**\*H. L. HALLIDAY, M.B., M.R.C.P.(U.K.), D.C.H., D(Obst).R.C.O.G.,**

and

**A. P. GRANT, M.D., F.R.C.P., F.R.C.P.I.**

**Belfast City Hospital**

**\* Now at the Royal Belfast Hospital for Sick Children**

## INTRODUCTION

THIS pilot study was carried out in Belfast during the period of civil unrest. A general medical ward with a once-weekly take-in of emergency admissions over a 24 hour period was the place of study. In order that beds become available for new admissions each week the turnover of patients must of necessity be rapid. It appeared to us that some beds became 'blocked' by patients who could not be discharged for social rather than medical reasons. It was therefore decided to enquire into some of the social factors associated with this delay in discharge.

## PATIENTS AND METHODS

For a six month period from January 1st 1974 all acute admissions to a Belfast medical ward were studied. Patients dying within 7 days of admission were excluded and 376 patients in total were observed (195 males and 181 females).

The importance of social factors causing delay in discharge was evaluated by two clinicians after discussion of each case. Patients were placed into two groups depending upon whether discharge was delayed for social reasons or for medical reasons. Patients whose discharge was not delayed were also placed in the latter group.

The proportions of patients in each of these two groups were then compared for age, sex, social class, religion, social isolation, diagnosis and area of Belfast in which the patient lived. The proportions for each variable were then compared with that expected i.e. the proportions in the whole sample; and differences in excess of twice the standard error were taken as significant. (In the Tables, proportions that are significantly higher or lower than the proportion of the whole sample are marked by the symbol \*).

## RESULTS

### *Age and Sex*

Patients of each sex were divided into 2 groups: those under 65 years of age and those over. The results are shown in Table I. For females there was a significant association between age and delay in discharge for social reasons; females over

TABLE I													
<i>Proportions of Patients with Social Factors Delaying Discharge by Sex and Age</i>													
AGE GROUP	MALE						FEMALE						
	Some Social Factors		No Social Factors		Total		Some Social Factors		No Social Factors		Total		
Under 65 years	25	27.5%	66	72.5%	91	100%	20	29.9%*	47	70.1%	67	100%	
Over 65 years	46	44.2%	58	55.8%	104	100%	70	61.4%*	44	38.6%	114	100%	
Total	71	36.4%	124	63.6%	195	49.7%	90	49.7%	91	50.3%	181	100%	

65 having more than twice the proportion with social factors than the under 65 group. Males over 65 also had more social problems delaying discharge than those under 65 but the difference was not significant. Table I also shows the high proportion of patients over 65 i.e. males 53 per cent and females 63 per cent. Patients over 65 years represented 58 per cent of all admissions.

Comparing the sexes it can be seen that females had more social problems delaying their discharge than males. More than one third of males and almost one half of females had some social factors delaying their discharge from hospital.

### *Social Class*

Each patient was allocated to one of the Registrar General's social classes based upon occupation. To obtain groups with comparable numbers classes I and II, and IV and V were combined. The analysis showed that there was no significant association between social class and social factors delaying discharge for either sex (Table II).

TABLE II													
<i>Proportions of Patients with Social Factors Delaying Discharge by Sex and Social Class</i>													
SOCIAL CLASS	MALE						FEMALE						
	Some Social Factors		No Social Factors		Total		Some Social Factors		No Social Factors		Total		
I & II	5	50.0%	5	50.0%	10	100%	6	46.2%	7	53.8%	13	100%	
III	20	20.6%	50	71.4%	70	100%	27	52.9%	24	47.1%	51	100%	
IV & V	44	39.6%	67	60.4%	111	100%	48	47.1%	54	52.9%	102	100%	
Unknown	2	-	2	-	4	-	9	-	6	-	15	-	
Total	71	36.4%	124	63.6%	196	100%	90	49.7%	91	50.3%	181	100%	

For males whose social class was known 5 per cent were from I and II, 37 per

cent from III and 58 per cent from IV and V. For females these figures were I and II 8 per cent, III 31 per cent and IV and V 61 per cent.

### *Religion*

There was no difference between patients of Protestant and Catholic religions in relation to delay in discharge for social reasons in either sex.

### *Social Isolation*

Patients were classified into 2 groups: those living alone and those living with relatives or friends. For males living alone, although the numbers were small, social factors delaying discharge were significantly more common than in the whole sample. (Table III). For female patients there was a similar trend but this was not statistically significant of females. 36 per cent were living alone compared to 14 per cent of males.

TABLE III  
*Proportions of Patients with Social Factors Delaying Discharge by Sex and Social Isolation*

DOMESTIC SUPPORT	MALE				FEMALE			
	Some Social Factors	No Social Factors	Total		Some Social Factors	No Social Factors	Total	
Living with Relations and Friends	54 32.5%	113 67.5%	167 100%		51 44.4%	64 55.6%	115 100%	
Living alone	17 60.7%*	11 39.3%	28 100%		39 59.1%	27 40.9%	66 100%	
Total	71 36.4%	124 63.6%	195 100%		90 49.7%	91 50.3%	181 100%	

### *Diagnosis*

The five commonest diagnoses and all 'other diagnoses' for each sex were analysed. The results are shown in Table IV.

The commonest diagnoses for men were as percentage of male admissions ischaemic heart disease 21.0 per cent, chronic bronchitis 19.0 per cent, pneumonia 11.8 per cent, peptic ulcer 10.8 per cent and stroke 9.7 per cent. For women the commonest diagnoses were as percentage of female admissions ischaemic heart disease 18.8 per cent, stroke 13.8 per cent, pneumonia 12.1 per cent, chronic bronchitis 7.2 per cent and asthma 5.0 per cent. The 'other diagnoses' accounted for 27.7 per cent of male and 43.1 per cent of female admissions but were too varied for individual consideration.

The analysis showed that for males peptic ulcer was a diagnosis carrying a significantly smaller proportion than expected of social factors delaying discharge. For females stroke was a diagnosis associated with an excess of social factors causing delay and asthma with a smaller number than expected.

TABLE IV								
<i>Proportions of Patients with Social Factors Delaying Discharge by Sex and Diagnosis</i>								
DISEASE GROUP	MALE				FEMALE			
	Some Social Factors		No Social Factors		Some Social Factors		No Social Factors	
Ischaemic Heart Disease	18	42.9%	24	57.1%	18	52.9%	16	47.1%
Chronic Bronchitis	17	45.9%	20	54.1%	6	46.2%	7	53.8%
Pneumonia	12	52.2%	11	47.8%	14	63.7%	8	36.3%
Stroke	9	47.4%	10	52.6%	22	88.0%*	3	12.0%
Peptic Ulcer	3	14.3%	18	85.7%*				
Asthma					1	11.1%	8	88.9%*
Others	12	22.6%	41	72.4%	29	37.2%	49	62.8%
Total	71	36.4%	124	63.6%	90	49.7%	91	50.3%

#### *Area of Residence*

Electoral ward areas of Belfast were classified into 3 groups in relation to the civil disturbance—troubled, intermediate and trouble-free. No significant results were obtained though patients admitted from trouble-free areas had a lower proportion of social factors delaying discharge than those from troubled areas—27.3 per cent to 44.1 per cent for males and 39.3 per cent to 58.2 per cent for females (Table V).

TABLE V								
<i>Proportions of Patients with Social Factors Delaying Discharge by Sex and Area of Residence</i>								
DEGREE OF CIVIL UNREST	MALE				FEMALE			
	Some Social Factors		No Social Factors		Some Social Factors		No Social Factors	
Troubled	30	44.1%	38	55.9%	32	58.2%	23	41.8%
Intermediate	23	37.7%	38	62.3%	34	52.3%	31	47.7%
Troublefree	18	27.3%	48	72.7%	24	39.3%	37	60.7%
Total	71	36.4%	124	63.6%	90	49.7%	91	50.3%

#### DISCUSSION

Although the numbers in this study were small in view of the heterogeneity of the data, the findings indicate, as might be expected, that older people (over 65) and those living alone are more likely to have social problems delaying their discharge from hospital, than other patients. Women appear to have more of such problems than men and are more likely to be living alone presumably because the expectation of life is considerably greater in women than in men (D.H.S.S. Report 1973). The

discovery that men of all ages living alone have more social problems than expected suggests that they have difficulty coping at home.

The proportion of elderly admissions to Belfast Medical wards may also be increasing. In 1972 51 per cent of patients in Belfast medical wards were over sixty-five (Grant 1975) as compared to 58 per cent in this study.

The findings strongly support the view that more homes for the elderly are required to receive old people who have largely recovered from their illnesses in hospital but cannot manage to look after themselves at home. Further, more geriatric beds are required for those who still need some medical and nursing care but who do not need the full facilities of an acute medical ward.

The proportion of patients from social classes IV and V in this study is high when compared with the proportion of the population of Northern Ireland from these classes—namely 58 per cent to 35.5 per cent for males and 61 per cent to 42.4 per cent for females (Census Reports, 1961). This is in keeping with the findings of others that morbidity is greatest in the lower social classes (Ministry of Pensions and National Insurance Report, 1965; Wald, 1972; Conover, 1973; Townsend, 1974). It is rather surprising then that the increased morbidity in social classes IV and V is not associated with a greater proportion than expected of social factors delaying discharge for either sex. Perhaps this is related to lower utilisation of medical services by the lower income groups as suggested by a recent Finnish study (Purola, et al 1968).

In relation to diagnosis, rehabilitation facilities for females who have suffered strokes may help them to become sufficiently mobile to cope at home or in an old people's residence. The lower than expected proportion of social factors delaying discharge in men with peptic ulcers and women with asthma probably reflects the younger age group of these patients.

Patients admitted from troubled areas have more social problems than others. This effect of the civil disturbance is less than anticipated. Lyons (1973) showed that under conditions of severe civil disturbance there was no increase in acute psychotic illness but that much of the population developed what he called 'a normal anxiety reaction'. This could, in part, explain the increase of social problems in patients admitted from troubled areas and their reluctance to be discharged.

## SUMMARY

Three hundred and seventy-six successive admissions to an acute medical ward in Belfast were studied to discover to what extent social factors delayed discharge. 63 per cent of females and 53 per cent of male admissions were over 65 years old. Females over 65 had significantly more social factors delaying their discharge than others. Males, in general had fewer of these factors (36 per cent to 50 per cent) compared to females. Rather surprisingly social class was shown to be unimportant in this respect but patients from the lowest social classes showed a greater morbidity rate than others. Males living alone had significantly more social factors delaying discharge than expected. Females with strokes also had more social factors though those with asthma, and males with peptic ulcers had significantly fewer than

expected from the total samples. Patients of both sexes admitted from 'troubled' areas of Belfast had more social factors delaying their discharge than those from 'troublefree' areas though the differences were not significant.

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